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(54) Title: PLANT PRODUCTION OF IMMUNOGLOBULINS WITH REDUCED FUCOSYLATION

C1-660 IgG

m/z theor.	m/z obs.	Glycan (glycopeptide)	Comment
1189.51	1189.47	no glycans	As observed in Ag with PNGase-F (1) On after PNGase-A treatment, obs. 600 = 1189.60 strong signal
1392.59	1392.54	N	major signal
1595.67	1595.61	N2	..
1757.72	1757.83	N2H	minor
1889.76	ND	N2HX	ND
1903.78	1903.90	N2HGX	trace
1919.77	1919.90	N2H2	trace
2035.82	2035.95	N2HXF	..
2051.81	2051.95	N2H2X	..
2065.83	2065.96	N2H2F	..
2081.82	2081.95	N2H3	minor
2197.87	2197.99	N2H2XF	major signal
2213.86	2214.00	N2H3X	..
2227.88	2228.01	N2H3F	..
2243.87	2244.02	N2H4	..
2284.90	2285.03	N3H3	trace
2359.92	2360.06	N2H3XF	major signal
2375.91	2376.07	N2H4X	..
2389.93	ND	N2H4F	ND
2405.92	2406.07	N2H5	significant signal
2521.97	2522.16	N2H4XF	..
2537.96	2538.34	N2H5X	trace
2551.98	ND	N2H5F	ND
2563.00	2563.16	N3H3XF	significant signal
2567.97	2568.18	N2H6	..
2684.02	2684.22	N2H5XF	..
2700.01	ND	N2H6X	ND
2714.03	ND	N2H6F	ND
2725.05	2725.24	N3H4XF	..
2730.02	2730.22	N2H7	..
2766.08	2766.26	N4H3XF	significant signal
2892.07	2892.25	N2H8	..
2846.07	ND	N2H6XF	ND
2862.06	ND	N2H7X	ND
2876.08	ND	N2H7F	ND
2928.13	2928.32	N4H4F	trace
3008.12	ND	N2H7XF	ND
3054.12	3054.39	N2H9	trace

NOTE: all these glycans are removed from glycopeptides by PNGase-A treatment; for single N removal is incomplete

Signal intensity: * - S/N > 3-5, but <10
.. - S/N >10
*** - intense signal, but less intense than "minor"
"significant signal" - intensity between "minor" and "major"

(57) Abstract: This invention provides for the plant production of immunoglobulins, wherein at least a portion of the glycans attached to the immunoglobulins lack fucose. The invention also provides the constructs; plasmids; vectors; transformed plant cells, transformed plant calli, transformed plant tissues (e.g., leaves, seeds, tubers, etc.) and transformed whole plants used to produce such immunoglobulins; methods of producing the immunoglobulins; the immunoglobulins produced by the disclosed methods; and the use of such immunoglobulins.

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